

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CIO149PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2005/002384	International filing date (day/month/year) 07.03.2005	Priority date (day/month/year) 05.03.2004
International Patent Classification (IPC) or national classification and IPC INV. B65B9/20 B65B25/04 B65B1/20		
Applicant CFS WEERT B.V.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 3 sheets, as follows:</p> <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 807 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains Indications relating to the following items:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the International application <input type="checkbox"/> Box No. VIII Certain observations on the international application 		
Date of submission of the demand 15.07.2005	Date of completion of this report 04.04.2006	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Fax: 31 651 epo nl Fax +31 70 340 - 3016	Authorized officer: Vigilante, M Telephone No. +31 70 340-2902	

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INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITYInternational application No.
PCT/EP2005/002384**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
 - International search (under Rules 12.3 and 23.1(b))
 - publication of the international application (under Rule 12.4)
 - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements* of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
 - a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

Description, Pages

1-6 as originally filed

Claims, Numbers

1-15 filed with telefax on 21.03.2006

Drawings, Sheets

1/3-33 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. The amendments have resulted in the cancellation of:
 - the description, pages
 - the claims, Nos. 16
 - the drawings, sheets/figs
 - the sequence listing (specify):
 - any table(s) related to sequence listing (specify):
 4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - the description, pages
 - the claims, Nos.
 - the drawings, sheets/figs
 - the sequence listing (specify):
 - any table(s) related to sequence listing (specify):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims 1-15
No: Claims

Inventive step (IS) Yes: Claims 1-15
No: Claims

Industrial applicability (IA) Yes: Claims 1-15
No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

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**INTERNATIONAL PRELIMINARY
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Re Item V**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement****1. Reference is made to the following documents:**

D1: GB-A-1 278 562 (HENRY, MIDDLEOUR) 21 June 1972 (1972-06-21)

2. Document D1 (see passages cited in the search report), which is considered to represent the most relevant state of the art, discloses (the following reference signs refer to D1) a process for packaging goods on a vertical packaging machine into a film, whereas a film tube (T) is formed and a cross seal is applied by sealing means () to a lower end of a film tube (T) to form a bottom of a packaging item.

The subject-matter of claim 1 differs from this known process in that the film tube which is located above the sealing means is transported vertically while the lower end of the film tube is fixed in its vertical position by the sealing means and/or by fixing means, to an extent that at least the bottom of the packaging item is expanded.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

The effect of the additional features is that the bottom part of the package is expanded and the product settles on a wider area.

The problem to be solved by the present invention may be regarded as how to enhance the packaging of goods by using the force of gravity only.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The prior art does not disclose or suggest the above features. Usually vibrating techniques are used to settle the packed product in the packages during manufacturing process. It is not obvious to further feed the film tube because this would lead to rupture of the film tube in the process disclosed in D1.

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Claims 2-15 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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Amended Claims:

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1. Process for packaging goods on a vertical packaging machine into a film, whereas a film tube (1) is formed and a cross seal is applied by sealing means (9) to a lower end of the film tube (1) to form a bottom (2) of a packaging item (3), characterized in that the film tube (1) which is located above the sealing means is transported vertically while the lower end of the film tube (1) is fixed in its vertical position (6) by the sealing means (9) and/or by fixing means (12), to an extent that at least the bottom (2) of the packaging item (3) is expanded.
2. Process according to claim 1, characterized in that one portion is filled into tube, while the tube is fixed.
3. Process according to claim 2, characterized in that the fill in of the portion expands the bottom of the packaging item.
4. Process according to claim 1, characterized in that during the packaging process at least parts of one portion (4) to be packaged are collected in the film tube (1) and/or in a fill pipe (10) and then dropped downwards and that the impact of the falling portion is used to compress the portion (4).
5. Process, preferably according to one of the preceding claims, for packaging goods on a vertical packaging machine in a film, comprising the following steps:
 - a. cross-sealing of the lower end of a film tube (1) to form the bottom (2) of a packaging item (3),
 - b. filling one portion (4) of the goods into the film tube (1),
 - c. fixing the lower end (5) of the film tube and/or the portion (4) in its vertical position (6)
 - d. releasing the fixed portion (4) and the film tube (1),
 - e. vertically transporting the film tube (1) and/or dropping the film tube (1),
 - f. dropping the portion (4)
 - g. stopping the transportation of the film tube (1),

- h. cross sealing the upper end (8) of the film tube to form the top of the packaging item (3) and
- i. separating the packaging item from the film tube,

whereas the sequence of the steps is not fixed, at least one step is executed twice and /or the steps can be carried out simultaneously, characterized in that between steps c. and d. the film tube is transported vertically, to an extent that at least the bottom of the packaging item expands.

- 6. Process according to claim 5, characterized in that steps e. and f. and/or steps a. and c. are carried out essentially simultaneously and/or that step e is carried out twice.
- 7. Process according to claim 5, characterized in that it comprises steps a – c, e, d – i, preferably in this sequence.
- 8. Process according to anyone of claims 5 - 7, characterized in that step e. is carried out prior to step d so that wrinkles (11) are formed in the film tube (1).
- 9. Process according to anyone of claims 5 – 8 , characterized in that between steps b. and c., the film tube and the portion (4) are lowered by a small extent.
- 10. Process according to anyone of claims 5 – 9, characterized in that step c is accomplished by cross sealing means (9).
- 11. Process according to anyone of claims 5 – 10, characterized in that step c is accomplished by fixing means (12).
- 12. Process according to anyone of the preceding claims, characterized in that the film tube (1) is made from a flat film web with a longitudinal seal.
- 13. Process according to anyone of the preceding claims, characterized in that two packaging items are produced simultaneously.

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14. Process according to anyone of the preceding claims, characterized in that the goods have a low and/or changing packaging density.
15. Process according to anyone of the preceding claims, characterized in that the packaging goods is salad.